In the Application of:

Darwin Rambo, et al.

Electronically Filed on November 10, 2008

Serial No.:   10/620,474

Filed: July 16, 2003

For: VOICE QUALITY ANALYSIS
      TECHNIQUE

Examiner: Qi Han

Group Art Unit: 2626

Conf. No.:   8619

PRE-APPEAL BRIEF REQUEST FOR REVIEW

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir / Madam:

    This Pre-Appeal Brief Request for Review and a Notice of Appeal are being submitted in response to the Advisory Action mailed on October 7, 2008.

RESPONSE TO EXAMINER'S REMARKS IN ADVISORY ACTION

Independent Claim 19 and Dependent Claims 20-25

The Applicants respectfully disagree with the statements made by the Examiner in the Advisory Action at section (a). In particular, the Applicants respectfully disagree with the Examiner's allegations. The Examiner states:

> It should be pointed out that the claimed/argued limitation "a selected output from a signal processing element of said one or more signal processing elements" is broad. It is also noted that there is no specific or detailed information in the claim for the terms "signal processing elements" and its "output", and even no [sic] any specific information in the specification for the terms "selected output", so that, as stated in the rejection, the 'gateway', 'IP communication devices', and 'codecs (i.e. coders/decoders)' disclosed by Goodman.

The Applicants respectfully submit that the elements recited in Claim 19 are specific. Applicants respectfully submit that the Examiner's allegation that a limitation of Claim 19 is "broad," provides a way of rationalizing and applying the Examiner's interpretation of what is disclosed in Goodman, in an attempt to show a teaching of Claim 19. The Applicants believe that the Examiner may have misinterpreted what is disclosed in Goodman in an attempt to show a teaching of "[a] first voice analysis platform or [a] second voice analysis platform receiving a selected output from a signal processing element of said one or more signal processing elements," wherein a "speech sample" is transmitted through a communication system, in which the "communication system compris[es] one or more signal processing elements,' as recited in Claim 19. Nowhere in Goodman, is there any teaching of a voice analysis platform receiving a selected output from a signal processing element of one or more signal processing elements of a communication system. The Applicants respectfully refer the Examiner to Figures 1a, 1b, 2 and 3, for example. Furthermore, the Applicants request the Examiner to review the present specification, at page 12, lines 1-3, which state:

> Each of the voice over IP gateways 112, 120 may output the reference speech sample at particular signal processing points within each gateway.

Applicants further refer the Examiner to the signal processing points of the gateways (112, 120), as illustrated in Figure 3 of the present specification, where it is evident that the output of these processing points (of a gateway, in which the gateway is part of a communication system) are communicatively coupled to a voice analysis platform by way of a network interface (340, 364), wherein the voice analysis platform computes a voice quality score. Furthermore, there is no disclosure, in Goodman, of computing a voice quality score of an output provided by a signal processing element (e.g., a voice activity detector (VAD), codec, echo canceller (ECAN), etc.), as recited in Claims 20-25. In comparison to what is recited in Claim 19, Goodman discloses test probes connected to ISDN primary rate interface (PRI) services (18a, 18b). In an attempt to show a teaching of Claim 19, the Examiner alleges that Goodman, at Figs. 1-2, col. 3, lines 12-27 and col. 4, lines 12-33, discloses a gateway and a codec within the gateway. While Goodman may disclose a codec within a gateway, Goodman does not disclose

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anything about an output of the codec used to compute a voice quality score, as recited in Claims 19 and 20. The outputs processed by Goodman's voice quality test probes (14a, 14b) are the outputs provided by an ISDN line (18a, 18b) provided by an ISDN primary rate interface (PRI) service, as illustrated in Figure 1 of Goodman. Furthermore, the Examiner alleges that "any information/signal from the [sic] these elements (i.e., the IP communication devices, gateway, or codec) can be read on the claimed "output", and the disclosure of 'the voice listening quality test (implying receiving some output to test) is performed for each level of service as determined by the type (selected by type) of codec...' (Goodman: col. 4, lines 3-17) can be properly read on the claimed/argued limitation. Applicants respectfully disagree with Examiner's characterization of Goodman, and do not see how Goodman discloses anything about an output from a signal processing element used to compute a voice quality score. Therefore, for at least these reasons, the Examiner has not shown a teaching of each and every element recited in Claim 19. Consequently, Claim 19 and its dependent Claims are in condition for allowance.

The Examiner further remarks that "it is noted that other portions of the disclosure (such as quality test model, algorithm and PAMS/PSQM measurements) cited in the rejection are also read on the claimed/argued limitation (see detail in the claim rejection), but the applicant failed to respond to these portions of disclosure in the rejection." Applicants did not see a need to respond to this portion of the Examiner's remarks since Applicants' foregoing argument overcomes the rejection to Claim 19. Therefore, for at least these reasons, the Applicants respectfully submit that the Examiner has not shown a teaching of "a first voice analysis platform for transmitting a reference speech sample through said communication system; and a second voice analysis platform for receiving said reference speech sample transmitted through said communication system, said communication system comprising one or more signal processing elements used to process said reference speech sample, said first voice analysis platform or said second voice analysis platform receiving a selected output from a signal processing element of said one or more signal processing elements, said output used to compute a voice quality score," as recited in Claim 19. Consequently, Claim 19 and its dependent Claims are in condition for allowance.

Applicants refer the Examiner to Figure 3 of the present specification, for example, which clearly illustrates how a voice quality analysis platform may compute a voice quality score on an output from a signal processing element (e.g, a 1st ECAN, a VAD, and 1st codec, a packetizer, a 1st WAN service interface, a 2nd WAN service interface, a jitter buffer, a 2nd codec, a comfort noise generator (CNG), a 2nd ECAN) by way of a 1st Network Interface or a 2nd Network Interface. As illustrated, outputs of the 1st ECAN, VAD, 1st codec, packetizer, jitter buffer, 2nd codec, CNG, and 2nd ECAN may be transmitted through the network interfaces (specification, at elements 340, 364) such that a voice quality score may be computed at the voice analysis platforms (specification, at elements 304, 368). In contrast, Goodman, at Figure 1, illustrates voice quality test performed on an output of an ISDN primary rate interface service. Thus, Goodman does not disclose what is recited in Claim 19. Thus, for at least the foregoing reasons, Claim 19 is in condition for allowance. Furthermore, since Claims 20-29 depend on an allowable Claim 19, Claims 20-29 are in condition for allowance. Based on the foregoing reasons, the Applicants respectfully request allowance of Claim 19 and depending Claims 20-29.

Dependent Claims 20-25

As was previously stated, the Applicants further submit that Goodman does not disclose each and every element recited in Claims 20-25. Applicants respectfully request the Examiner to

show a teaching of dependent Claims 20-25, each of which specifies the signal processing element in which the output taken from and used for computing a voice quality score. For example, the Applicants respectfully submit that Goodman does not disclose an output from a voice activity detector (VAD), wherein the output is received by a voice analysis platform, and is used to compute a voice quality score. For at least this reason, the Applicants respectfully submit that the subject matter recited in Claims 20-25 present patentable subject matter. As a consequence, Claims 20-25 should be advanced to allowance.

Dependent Claim 29

Contrary to what the Examiner alleges in section (b) of the Advisory Action, the Applicants respectfully disagree that Claim 29 references parent Claim 1. Applicants respectfully submit that Claim 29 depends on Claim 19. Furthermore, contrary to what the Examiner alleges, the Applicants believe that they have provided persuasive arguments. As was previously stated in the response to office action dated September 10, 2008, there is no teaching of "said configuration data used in determining said selected output from one or more outputs corresponding to said one or more signal processing elements." Goodman discloses a configuration table that stores phone numbers with associated service level information for look-up, but does not disclose anything about configuration data used in determining a selected output from one or more outputs corresponding to one or more signal processing elements. Therefore, for the foregoing reasons, the Examiner has not shown a teaching of each and every element recited in Claim 29. Consequently, Claim 29 contains patentable subject matter. Therefore, Claim 29 should be advanced to allowance. Furthermore, the Applicants respectfully submit that for at least the reason that Claim 29 depends on an allowable Claim 19, Claim 29 should be allowed.

Independent Claim 11

In response to the Examiner's remarks in section (c) of the Advisory Action, the Applicants respectfully submit that the Examiner agrees that a reference speech sample is transmitted from a first test probe *through* a gateway to a second test probe. Based on the reasons Applicants' have presented for Claim 19, the Examiner has not shown a teaching of "receiving said reference speech samples captured at one or more processing points within a gateway of said communication system; and determining voice quality scores based on said captured reference speech samples." While the Examiner alleges that "a VOIP communication device can be gateway that has a embedded reference voice file and a codec to be evaluated, so as being properly read on the claimed," the Examiner has not shown a teaching of "receiving said reference speech samples *captured at one or more processing points within a gateway* of said communication system; and determining voice quality scores *based on said captured reference speech samples*." Goodman does not disclose anything about computing a voice quality score of reference speech samples captured at one or more processing points within a gateway. The Office Actions have not shown a teaching of Claim 11. Furthermore, Applicants request the Examiner to review Applicants' response for Claim 19. Therefore, contrary to what the Examiner alleges, the Goodman does not teach the limitations recited in Claim 11. Furthermore, since Claims 12-13, 15-17, and 49-54 depend on an allowable Claim 11, Claims 12-13, 15-17, and 49-54 are in condition for allowance. Based on the foregoing reasons, the

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Applicants respectfully request allowance of Claim 11 and depending Claims 12-13, 15-17, and 49-54.

Other Claims

In response to Examiner's remarks in section (d) of the Advisory Action regarding other claims, the Applicants respectfully submit that independent Claims 30 and 41 are in condition for allowance for at least the reasons previously presented in Claims 11 and 19, for example. The Applicant respectfully submits that Goodman does not teach "a voice analysis platform for transmitting and receiving a reference speech sample through said communication system, said communication system comprising one or more signal processing elements used to process said reference speech sample, said voice analysis platform receiving a selected output from a signal processing element of said one or more signal processing elements, said output used to compute a voice quality score," as recited in Claim 30. The Applicants respectfully submit that Goodman does not teach "transmitting a reference speech sample from a first voice analysis platform to a second voice analysis platform; monitoring one or more outputs of one or more signal processing elements of said communication system; and using said one or more outputs to generate one or more corresponding voice quality scores," as recited in Claim 41. Since the Examiner has stated that the rejections for Claims 30 and 41 are based on the same reason he described for Claim 19, the Applicants respectfully refer the Examiner to Applicants' arguments set forth above with regard to the rejection of Claim 19. Based on the foregoing reasons, the Applicants respectfully request allowance of Claims 30 and 41 and their associated dependent claims. Since Claims 31-40 depend on an allowable Claim 30, Claims 31-40 are in condition for allowance. Since Claims 42-48 depend on an allowable Claim 41, Claims 42-48 are in condition for allowance. Thus, based on the foregoing reasons, the Applicants respectfully request allowance of Claims 30-41 and Claims 41-48.

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CONCLUSION

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Because of the foregoing arguments presented by the Applicants, the pending claims should be allowed. Consequently, a Notice of Allowance is courteously solicited.

Respectfully submitted,

Date: November 10, 2008   By: _____/Roy B. Rhee/_____
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